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Case Series: Ovarian Cyst in Pregnancy

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Abstract: ***Ovarian tumours are common at all stages of reproductive life, and their discovery during pregnancy is not very surprising. Majority of ovarian cyst asymptomatic and some of these may be diagnosed on routine pelvic examination. The detection of incidental Adnexal masses has enormously increasing with the almost universal practice of routine ultrasound in pregnancy. This study evaluates clinical features and pregnancy complications and outcomes. This is retrospective study of 6 patients diagnosed with ovarian cyst in pregnancy in the obstetric and gynaecology department at Rajiv Gandhi medical college kalwa thane from October 2021 to October 2022.***

Keywords: Ovarian cyst, Pregnancy

1.Introduction

Ovarian tumours are common at all stages of reproductive life, and their discovery during pregnancy is not very surprising. Majority of ovarian cysts are asymptomatic and some of these may be diagnosed on routine pelvic examination. The detection of incidental Adnexal masses has enormously increased with the almost universal practice of routine ultrasound in pregnancy. The prevalence of adnexal masses in pregnancy ranges from 0.19 -8.8 % live births. 5 % of persistent masses have been reported to be malignant.[1]

A number of these are functional cysts which usually resolve spontaneously in a few months. The commonest neoplastic cyst dermoid followed by simple serous and pseudomucinous cystadenoma. Acute complications such as torsion, rupture and haemorrhage have been known complications during pregnancy. Apart from these complications the tumour may suffer incarceration within the pelvis, possibly causing acute retention of urine as in the case of the incarcerated retroverted Gravid uterus. Their presence within the pelvis also favours malpresentation and may obstruct labour.

Elective surgical removal of persistent masses during the second trimester (14- 18 weeks) has been the traditional teaching for fear of acute complications has been reported to be less than 2% and approximately 51 to 70% of masses resolve spontaneously during pregnancy. Most masses, therefore, can be safely followed up during pregnancy.[2]

In early pregnancy, the tumour can be palpated separately from the uterus. More often, however, the diagnosis is made on ultrasonography which reveals a cyst lying alongside the gravid uterus. Improved resolution of the ultrasound machines, the use of transvaginal transducers and colour Doppler can now help characterise these masses and predict malignancy with great accuracy. The most common histopathology was dermoid (40%). This study evaluates the clinical features, course in pregnancy, management the pregnancy outcome in patients the ovarian masses diagnosed during pregnancy.[3]

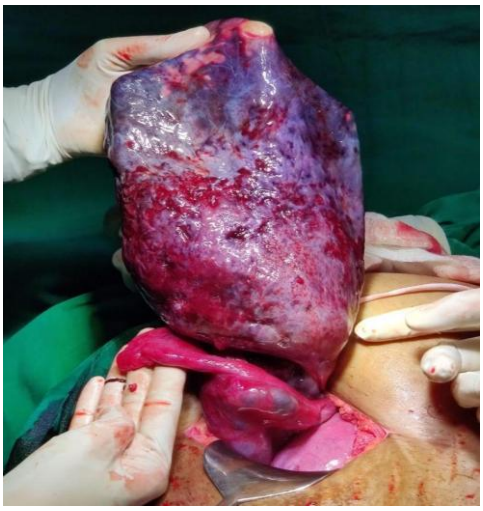
2.Case Series

This was a retrospective study of 6 patients diagnosed with ovarian mass during pregnancy in the department of obstetrics and gynaecology at Rajiv Gandhi medical college kalwa Thane from October 2021 to October 2022.

This is retrospective study of patients who diagnosed with ovarian mass during pregnancy. 3 patients developed ovarian torsion and underwent emergency laparotomy during second trimester, patients were on regular follow up and all of them delivered by Caesarean section and cystectomy was done simultaneously and postoperative periods was uneventful.

First Case

24 year old female G2P1L1 at 26 weeks of gestation with previous LSCS came with chief complaining right hypochondriac pain with 2-3 episodes of vomiting. Patient known case of gestational hypertension on tablet labetolol 100mg bd ultrasound done suggestive of 17x11cm size cystic lesion with multiple septation noted in right adnexa. Doppler study suggestive of torsion. Patient underwent laparotomy. Patient was on regular follow up. Patient underwent elective LSCS at 38 weeks.



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Intra operative finding

Right ovarian cyst 10x7x5 cm with torsion and left side ovary and tube normal. Uterus size 26 weeks.

Post operative period

Postoperative period uneventful.

Histopathology

Feature suggestive of mucinous cystadenoma of right ovary.

Second Case

28 year old female primigravida with 39.6 weeks came with chief complaining of pain in abdomen since morning. On examination the patient was in active labour 6-7 cm dilated and fully effaced with bulging membrane artificial rupture of membrane done liquor clear but baby breech patient immediately prepared for emergency LSCS in view primigravida with breech in labour. Incidentally found an ovarian cyst at time of caesarean section.

Intra operative finding

Left ovarian cyst 5x 6 cm with cystectomy done. Right ovary and Fallopian tube normal.

Post operative period

Postoperative period uneventful.

Histopathology

Feature suggestive of mucinous cystadenoma of right ovary.

Third case

26 year old female G2P1L1 at 20 weeks of gestation with previous LSCS came with chief complaining pain in abdomen since 2-3 months, pain was dull aching non radiating.ultrasound done suggestive of 8x10cm size cystic lesion with multiple septation and hair like structure noted noted within the cyst in right adnexa.Doppler study suggestive of torsion. Patient underwent laparotomy right sided cystectomy done. Patient was admitted in view threatened preterm two times. Patient underwent emergency LSCS AT 37 week in view previous LSCS with scar tenderness.

Intra operative finding

Right ovarian cyst 7x8 cm with torsion and left side ovary and tube normal. Uterus size 18 weeks.

Post operative period

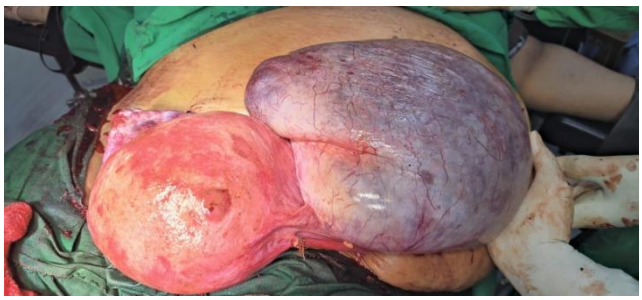
Postoperative period uneventful.

Histopathology

Feature suggestive of dermoid of right ovary.

Fourth case

34 year old female G3P2L3 with previous 2 LSCS at 34 weeks came with chief complaining pain in abdomen since 2-3 months. Patient morbidly obese (weight -108kg). Ultrasound sound done suggestive of 32 was twin gestation with adequate amniotic fluid index both babies breech no evidence of placental invasion. Patient kept on tocolytic agent. Patient was on regular follow up. Patient underwent elective LSCS at 38 weeks during caesarean we accidentally found an ovarian cyst.



Intra operative finding

Left sided ovarian cyst of size 18x15 cm. Weight of ovarian cyst was 2.5 kg.

Post operative period

Uneventful.

Histopathology

Feature suggestive of mucinous cystadenoma.

Fifth case

30 year old female G2P1L1 at 24 weeks of gestation with previous LSCS came with pain in abdomen. Patient clinically had tachycardia with low blood pressure. After resuscitation ultrasound done suggestive of ovarian torsion. Patient underwent laparotomy. Patient was on regular follow up. Patient underwent elective LSCS at 38 weeks.

Intra operative finding

Right ovarian cyst 8x7cm with torsion and left side ovary and tube normal. Uterus size 24 weeks.

Post operative period

Postoperative period uneventful.

Patient was on regular follow up, growth scan done at 34 weeks show single live intrauterine gestation in cephalic presentation AFI adequate placenta fundo posterior, EFW 2876+-345gms.

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At 38 weeks of gestation, the patient underwent elective LSCS in view of previous LSCS.

Histopathology

Feature suggestive of mucinous cystadenoma of right ovary.

Sixth case

34 year old female G3P2L2 with previous 2 LSCS at 38 weeks came with chief complaining pain in abdomen since morning. On examination the patient was in active labour cervix 4 cm dilated 50% effaced membrane present station -1. Patient getting adequate contractions and the Fetal heart sound was good.Patient immediately prepared for emergency LSCS.

Intra operative finding

Left sided ovarian cyst of size 10x12cm.

Post operative period

Uneventful.

Histopathology

Feature suggestive of serous cystadenoma.

3.Discussion

The incidence of ovarian masses is same in pregnant as well as non pregnant females of reproductive age group. The most common ovarian masses with pregnancy are functional cyst like corpus lutein of pregnancy. Most of this cyst resolves spontaneously after 14 -16 weeks of gestation, but some persist until after delivery. Frequency of ovarian masses with pregnancy is 1: 1000 among these frequencies of being malignant is 1: 15000-1: 32000 pregnancies.[4]

Because pregnant women are usually young age group malignant tumours and those of low malignant potential are potentially uncommon. Most ovarian masses are asymptomatic in pregnant women. Some cause pressure or chronic pain and acute abdominal pain due to torsion, rupture or haemorrhage.

Tumour markers in pregnancy

CA125 serves as a tumour marker and levels are elevated in ovarian malignancy. Level of CA125 elevated in early pregnancy and early puerperium are normally elevated, possibly from decidua. From second trimester until term levels are not higher than those in non pregnant.[5] With severe preeclampsia however levels are abnormally elevated. [6] Other tumour markers are not useful for diagnosis and post treatment surveillance.[7]

Complications

Most common complication is torsion of the ovary, torsion usually causes acute constant or episodic lower abdominal pain accompanied by nausea and vomiting. With colour doppler presence of ovarian mass with absent flow strongly correlates with torsion. However minimal or early testing may compromise only venous flow thus leaving arterial supply intact, if torsion is suspected laparoscopy or laparotomy is warranted.

A cystic benign appearing mass that is less than 5 cm often requires no additional antepartum surveillance. Early in pregnancy this is likely a corpus leutin cyst which typically resolves in the second trimester. For a cyst greater than 10 cm because of risk of malignancy, torsion labour obstruction surgical removal is recommended. Tumours between 5-10cm should be carefully evaluated by sonography with colour doppler or possibly magnetic resonance imaging. If there is simple cystic appearance this cyst can be managed expectantly with sonographic surveillance.[5] Resection is done if cyst grow begin to display malignant quality or becomes symptomatic. Those with classic finding of endometrioma or mature cystic teratoma may be resected postpartum or during caesarean.

On other hand sonographic characteristics suggest cancer than immediate resection is indicated (caspi 2000).

Approximately 1 in 1000 pregnant women undergoes surgical exploration for adnexal masses. In general plan of resection at 14-20 weeks of gestation because most of masses which regress will have done so by time. In any instance in which there is high index of suspicion for malignancy ACOG recommends consultation with gynaecologist oncologist.

4.Conclusion

Most of the ovarian masses in pregnancy are benign in nature asymptomatic and resolve spontaneously. Routine ultrasonography can miss the diagnosis of ovarian masses at times, so we should be vigilant during the antenatal period and during caesarean to look for these masses.

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